REPORTING REQUIREMENTS DOCUMENT
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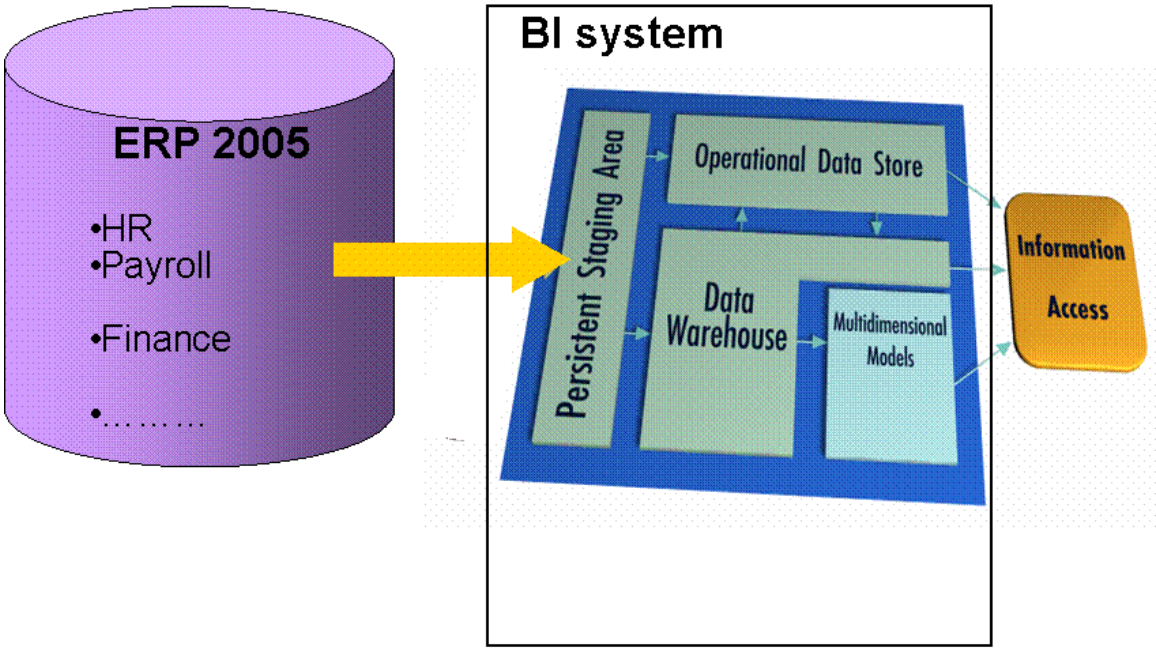
1. INTRODUCTION

The BEACON project to implement SAP ERP 2005 requires a reporting solution that will effectively support the HR and Payroll business processes and also provide the ability to perform analysis of those core business processes. The State of North Carolina has selected the SAP NetWeaver Business Intelligence (SAP BI) solution to meet these reporting and analytical needs. Transactional data resides in the ERP 2005 system and a copy of portions of the data is extracted into the Business Intelligence (BI) system for further reporting and analysis.



In cases where specific transactional details are not available within SAP BI, or where the timeliness of the data dictates that the report must be executed in a real-time manner, an ERP 2005 solution will be used in order to satisfy the reporting requirement. The current project scope does not include historical data, however a separate initiative is underway to develop a strategy for identifying what historical data should be kept and where the data will be stored for access.

2. REPORT REQUIREMENTS DOCUMENT DEVELOPMENT PROCESS

The BI team deliverable from the blueprint process is the Report Requirements Document. In developing this report listing the BI team completed a detailed evaluation process which is described in more detail in the next section of this document.

2.1 Reporting Functional Requirements Evaluation Process

The reporting functional requirements were gathered utilizing a combination of the following methods:

a. RFP Review – Reporting requirements were extracted from the RFP document.

b. Functional Team Business Process Workshops – These workshops were conducted by the functional teams and concentrated on gathering existing state business needs and processes by functional area. Questionnaires were created for each functional area and distributed to state agencies. The completed questionnaires were used to facilitate conversation in the workshop, and to ensure that key topics were discussed. Reporting requirements were gathered both from the returned questionnaires and from the workshop notes where reporting needs were discussed as part of a business process. Individual Functional workshops were conducted for Time requirements, Benefit requirements, Payroll requirements, Human Resource requirements, Training and Event Requirements and for Finance Requirements. Training and Events has been removed from the first go-live; therefore, the reports identified are not included in the document. Multiple workshops were conducted addressing specific business processes. Agencies attending these workshops are shown in the Table below.

Attendance at BI Reporting Workshop by Agency

AGENCY	ATTENDED
Office of State Personnel	Yes
Office of State Controller	Yes
Office of State Auditor	Yes
Department of State Treasurer	Yes
Department of the Secretary of State	Yes
Department of Administration	Yes
Department of Insurance	Yes
Department of Health and Human Services	Yes
Department of Agriculture and Consumer Services	Yes
Department of Justice	Yes
Department of Commerce	Yes
Department of Environment and Natural Resources	Yes
Department of Wildlife	Yes
Information Technology Services	Yes
Department of Revenue	Yes
Department of Transport	Yes
Department of Correction	Yes
Administrative Office of the Courts	Yes
Department of Cultural Resources	Yes
Department of Public Instruction	Yes

AGENCY	ATTENDED
Department of Crime Control and Public Safety	Yes
NC Education Lottery	Yes
NC Housing Finance	Yes
Employment Security Commission	Yes
Department of Labor	Yes
Office of State Budget and Management	Yes
State Health Plan	Yes

c. BI Reporting Workshops – Reporting workshops were conducted by the BI team by functional area. These workshops were held to specifically address the reporting needs of the State. Prior to the workshops a BI questionnaire was created and distributed to state agencies. RFP items were discussed along with completed and returned questionnaires. Workshop attendees were asked to identify additional existing reports which they deemed necessary to manage their Agency, and also to identify requirements for reports for which are currently not available within the legacy environment. Reporting requirements were gathered from the returned BI questionnaires and from BI workshop notes. Individual BI workshops were conducted for Time requirements, Benefit requirements, Payroll requirements, Human Resource requirements and for Finance Requirements. Agencies attending these workshops are shown in the Table below.

Attendance at BI Reporting Workshop by Agency

AGENCY	ATTENDED
Office of State Personnel	Yes
Office of State Controller	Yes
Office of State Auditor	Yes
Department of Insurance	Yes
Department of Health and Human Services	Yes
Department of Agriculture and Consumer Services	Yes
Department of Justice	Yes
Department of Commerce	Yes
North Carolina Community Colleges	Yes
Department of Environment and Natural Resources	Yes
Dept of Juvenile Justice and Delinquency Prevention	Yes
Information Technology Services	Yes
Department of Revenue	Yes
Department of Transport	Yes
Department of Correction	Yes
Administrative Office of the Courts	Yes
Department of Cultural Resources	Yes
Department of Crime Control and Public Safety	Yes
NC Education Lottery	Yes
NC Housing Finance	Yes
Employment Security Commission	Yes

d. Executive interviews – An executive interview for state executives and leaders was conducted by the change management team in order to determine what were the States' requirements for strategic reporting. In addition to identifying types of reporting needed, they were asked to identify performance indicators which they have difficulty reporting on today. Reporting requirements were gathered from the notes taken from that meeting. The following executives participated in these interviews:-

   Mr. Allyn Guffey, Asst. Sec. for Finance and Business Operations (DHHS)
   Mr. Bill Golden, CIO (Treasurer's Office)
   Mr. Bill Willis, Deputy CIO (ITS)
   Mr. Dempsey Benton, Chief Deputy Secretary (DENR)
   Mr. Dan Stenieke, Chief Deputy Secretary (DOC)
   Ms. Gwen Canady, Deputy State Controller
   Mr. John Baldwin, Chief of Staff (DOL)
   Ms. Kristi Hyman, Chief of Staff (DOJ)
   Ms. Nels Roseland, Deputy Chief of Staff (DOJ)
   Mr. Mark Foster, Chief Fiscal Officer (DOT)
   Mr. Philip Price, CFO & Assoc. State Superintendent (DPI)
   Mr. Randy Barnes, Asst. Secretary (DOR)
   Mr. Staci Meyer, Chief Deputy Secretary (DCR)
   Mr. William Dudley, Chief Deputy Secretary (DCCPS)

e. Functional Teams ERP2005 Functionality Assessment – Each functional team has made an assessment of the business processes at the State and how the new ERP 2005 system will be configured to support those processes. Along with that assessment, the functional team has identified reports which are needed to support the business process. Reporting requirements were gathered from the blueprint documents provided by each functional team.

f. Legacy System Review – Existing reports from the legacy systems [Personal Management Information System (PMIS), Central Payroll and Department of Transportation (DOT) Payroll] were reviewed and evaluated to determine if they were applicable to the new SAP processes and if they represented a reporting requirement that had not been captured as part of the previous efforts. An analysis of usage frequency was performed to identify those reports that are most commonly used statewide. Reports which were identified by this process as frequently used and not already captured were added to the reporting requirement list.

2.2 Requirements Analysis and Consolidation

a. All report requests were documented and identified by functional area, then grouped by topic.

b. Over 1600 report requests were documented. Many of these were duplicate requests from multiple agencies. The requests were sorted based on like data elements and duplicates were isolated. Next all items relevant to business functions currently outside of the scope of the BEACON project were identified and set aside for future consideration. Similarly any requirements that were clearly interfaces and/or forms were identified as such and communicated to the development team for inclusion in their requirements.

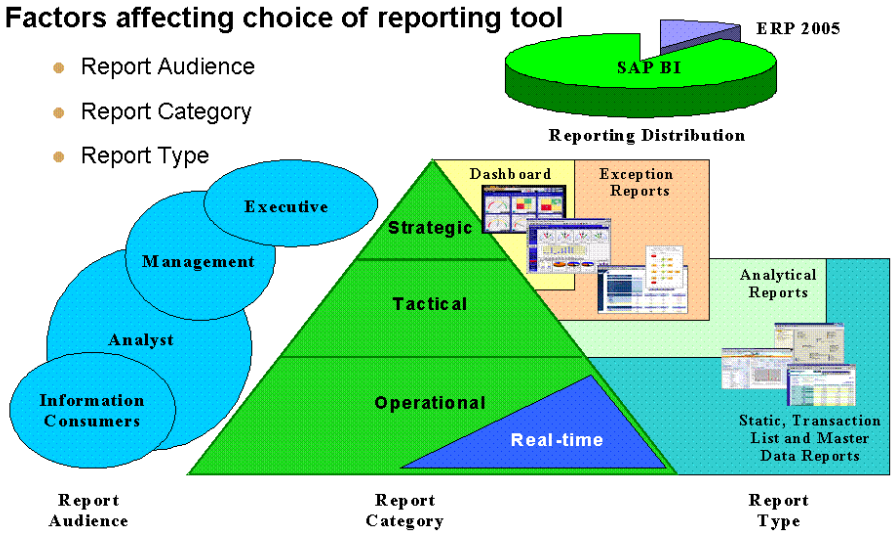
c. All remaining reporting requirements were evaluated for priority based on the following model: A – a legal or legislative requirement, B – required to support the operations of the State, C – assists with the operations of the State, makes the job easier, D – nice to have, currently not available. Reports will be generated in order based on this prioritization with items identified as an A or B being the highest priority items.

d. Reports were then analyzed to determine how they fit into the business process, how the report would be used; what type of user would be accessing it, and whether real-time data access was required. Reports which directly support a transactional process performed by an administrator or analyst as they are working in an SAP module or reports which require access to real-time data as it is changing during the day were designated as being sourced from the ERP system. All other reports were designated as being sourced from the BI reporting system.

e. Finally the report requirements were compared to SAP standard "out of the box" report objects to determine what could be used from the delivered business content and where the gaps existed between existing reports and the assembled report requirements. This analysis became the basis for the proposed enhancements and custom developments within BI which are needed to support the state reporting requirements.

2.3 Reporting Tool Determination

The following rationale was applied in deciding if a report was to be an ERP 2005 or BI report. This rationale is consistent with the approved reporting strategy approved by the State of North Carolina during the Project Preparation phase.



2.3.1 The timeliness of the report's information

If a report requires real-time access to information (such as 'list of employees clocked in'), it would be best suited for ERP 2005. The frequency of data loads into SAP BI will depend on the business case requirement. While the SAP BI extracts can occur frequently, they will not be real-time. The current expectation is that most extracts will occur daily (at night).

2.3.2 Report required to support an ERP business process

If a report is required to support an ERP business process, for example the user wants to check the data they just entered, or validate employee master data before processing an action it would not be practical to stop processing and move to BI to execute the report. Such reporting should be done in ERP environment.

2.3.3 Standard reports available in ERP 2005

Standard ERP 2005 reports are available for the real-time and detailed transactional reporting needs of the business. In some cases, however, the standard reports require enhancement, or ERP configuration makes the standard report unusable. These enhancements are localized and not re-useable for other reporting needs and generally require ABAP coding, which in turn impacts report performance. Where a standard ERP report was suitable for the requirement it was identified.

2.3.4 The level of detail required for the report

Reports that equate to transaction listings at detailed level will generally be sourced from ERP unless the specific requirement and other considerations required BI to deliver that report. Since BI is not intended to be a total replication of all transaction data, some reports will need to be developed in ERP when access to this detail data is needed.

2.3.5 The development effort

If the effort to develop a particular report in SAP BI is significant either because of complexity or because BI does not have the required data, i.e., negative reporting, then the requirement was identified as a ERP solution.

2.3.6 Standard Business Content available in SAP BI

In all other cases the report will be developed and delivered from BI. Where possible, standard Business Content delivered with SAP BI will be enhanced to include the unique data elements of the State of North Carolina. Enhancements made in BI are global in nature, and can be reused throughout the SAP BI environment.

2.4 Report Requirements Document

The following tables summarize the BEACON report requirements:

Requirements identified: 1,686 line items

Requirements consolidated to: 191 reports

Reports by system and functional sub area: (shown in table below)

(The BI report counts only reflect the objects with an A, B, or C priority.)

FUNCTIONAL SUBAREA	BI	ERP CUSTOM	ERP STD
Organization Management (OM)	23	2	1
Personnel Administration (PA)	60	4	
Benefits (BN)	6		8
Time Management (PT)	10	2	9
Payroll (PY)	22	1	6
Finance (FI)	2		9
Total	**119**	**9**	**33**

A complete list of reports is included in the *Final_FRICE list.xls* file and the *BI Report requirements list.xls.*

2.5 ERP Reports Analysis

The 9 ERP reports represent custom reports that will be developed in addition to the use of standard reports within ERP 2005 system. In addition to the custom reports, there are 17 forms which may require report development. The following provides a list of those objects.

ID	NAME	DESCRIPTION
R001	Listing of Existing Jobs including T grade jobs and related security.	Report needed to list existing jobs.
R002	Time Not Entered	A listing of who has not entered time broken down by employee
R003	Mass Notifications	RFP - 387: Job class changes notification. List Employee by job class
R004	Leave Projection for Estimating Total Consumption of Leave Balance	An estimate per employee of the total leave available, assuming that the person is on leave from a certain date and is accumulating leave while using it. This is used mostly to estimate the termination date for employees who are getting ready to retire, and would like to spend the last period of their working time on leave prior to retirement.
R005	Range vision cost analysis report - Projects the cost of a range revision	Range vision cost analysis report - Projects the cost of a range revision
R006	Display Public Information	The "Public Information" is defined by N.C.G.S. 126-22. The content of the display include employee's name, age, date of employment, current employment info, most recent salary change (date and amount), and date of most recent action.
R007	Delegated Authority Report	Report of which jobs classifications are under CCA (Class Concept Authority) at a given agency and the changes that have been made to the classification
R008	Employee Emergency Response Team	Emergency
R009	Non State Taxed Severance Pay	A portion of severance pay is not subject to state taxes. This report is used to identify that amount
S001	Direct deposit form statement remuneration statement) for ESS and agency print. MSS & ERP functionality different. ERP can print one form or group of forms. MSS allows viewing of one report at a time. To print entire agency, ERP is recommended, not MSS.	Direct deposit form statement (renumeration statement) for ESS and agency print.
S002	Actual/Physical check generated for employee (Warrant)	Actual/Physical check generated for employee (Warrant)

ID	NAME	DESCRIPTION
S003	Garnishment notice letter to employee	Garnishment notice letter to employee
S004	Garnishment answer letter to originator	Garnishment answer letter to originator
S005	Remittance Advice for vendors	Check files for 3rd party checks. Check file is generated in ERP and printed on bottom line printer.
S006	Creating a variant for the payment medium workbench (3)	Creating the layout for the ACH form for AP (vendor) payments
S008	Benefit Obligations - LOA/ Disability	Ability to generate a customized letter explaining the employee's specific benefit obligations while they are out on disability
S009	Form - Cancer - Evidence of insurability	Create a form to be accessed by ESS (Cancer Plan)
S010	Form - Life Insurance - Evidence of insurability	Create a form to be accessed by ESS (Life Insurance)
S011	Form - Confirmation Form - (Standard) HRBEN0015	Add NC Style to Standard Forms which will be displayed in ESS
S012	Form - Coordination of Benefits	Vendor would like electronic file to coordinate benefits with other providers.
S013	Forms - Generic Listing - More details forthcoming - maybe 5 more forms for ESS	Vendor would like electronic file to coordinate benefits with other providers.
S014	Job & Position Description Form	Automatically create the Job Description forms using SAP data and infotypes. Currently, SAP has a standard job/position description form, but we will need to modify the format to coincide with the new standard form.
S015	Form to support the donation of leave for Voluntary Shared Leave (VSL)	Form to support VSL - each agency has own form
S017	3rd Party Remittance Letters	Smart Forms (SAP script for remittance letter form SAP for 3rd party remittance)
S018	Form to support Advance Leave (Vacation or Sick).	The form will be an online entry form in ESS to support an employee making a request to be granted Advance Leave (Vacation or Sick). i.e. when employee has no leave available. Static form also requested outside of development.
S019	NC specific form for Time Statement which includes Date Type from IT0041	NC specific form for Time Statement which includes Date Type from IT0041

Report identified as standard do not necessarily represent all standard reports that will be made available to end users, rather these reports were provided to address a specific requirement that had been identified during the blueprint phase utilizing the process outlined in this document.

2.6 BI Reports by InfoProvider

The following table lists by functional area the InfoProvider that would be populated with data from ERP 2005 and the number of reports that would use that InfoProvider.

INFOPROVIDER	# REPORTS
OM	
0PAOS_C01 Staffing Assignments	15
0PA_DS02, 0PA_DS03 Structural Authorizations	*
ZOM_DS01 IT1001 OM Relationships	1
ZOM_DS02 OM Position Attributes	7

PA	
0PA_C01 Headcount & Personnel Actions	54
0PAPA_C02 Headcount Changes	1
ZPA_C03 EEO Reporting	17
ZPA_DS01 Personnel Actions	1
ZPA_DS02 Employee General Data	6
ZPA_DS03 Residence Status	1
ZPA_DS04 Educations and Qualifications	2
BN	
ZPABN_C01 Benefits	6
PT	
0PT_C01 Time & Labor	3
ZPT_C02 Quota	5
ZPT_C03 FMLA	2
ZPT_MC04 Time & OM Data	1
0CATS_MC1 Timesheet (Total)	2
PY	
0PY_C02 Employee Specific Payroll Data	19
0PY_PP2 Posting Documents	2
0PY_MC02 Time & Payroll Data	1
FI	
0CostCenter –Master Data Attributes	2
TOTAL (22)	148

* Data in these infoproviders will be used as basis for security roles, no report requirements identified per se.

2.6.1 BI Reports by Priority

The following table lists the number of reports by priority. As discussed earlier reports will be made available based on the prioritization assigned during Blueprint. Priorities are A – a legal or legislative requirement; B – required to support the operations of the State, C – assists with the operations of the State, makes the job easier, and D – nice to have, currently not available.

PRIORITY	# REPORTS
A – legal or legislative requirement	23
B – required to support operations	74
C – assists with operations	22
D – nice to have	29
TOTAL	148

3. BI INFOPROVIDER DEFINITIONS

3.1 OM/PA/BN Note

Employee and Position data is master data with date dependency that acts like transaction data, thus from a BI design perspective it is more optimal to load this data to InfoProviders with info type and date dependency, than to add multiple attributes to master data tables.

3.2 Organization Management (OM)

InfoCube: Staffing Assignments 0PAOS_C01

This InfoCube provides data on number of positions, occupied and vacant, position FTE and span of control of a position. It includes characteristics Position, Org Unit, Position Account Assignment, Personnel Area and Sub Area, Employee Group and Sub Group, Employee, Pay grade and Pay scale, Age, Nationality, Gender. No delta load (only changed records) option is available, but it is possible to load the prior month only data using InfoPackage filters. Data is loaded monthly.

This InfoCube provides reports on position status, position attributes, position changes, vacancies, org unit hierarchy and job attributes.

Custom enhancement: For diversity reporting add ethnicity and vet status to the InfoCube.

DataStore: Structural Authorizations 0PA_DS02, 0PA_DS03

Stores data from ERP on Structural Authorizations, both values and hierarchies. The program RHBAUS00 evaluates the settings stored in Tables T77UA, T77PR and T77UU and fills the cluster INDX in the ERP system. The BI system extracts the data from this cluster. These DataStores are normally maintained by Security Team. Data is loaded as required, and forms the basis for the Security roles required for organization unit security in BI.

DataStore: OM Relationships ZOM_DS01

Custom data store to capture OM relationships from HRP1001(relationships). This DataStores used for reporting on relationships between positions, and supervisor/employee data. It is delta enabled and data will be loaded daily

DataStore: OM Position Attributes ZOM_DS02

Custom data store to load Position infotype data for detailed reporting – account assignment, cost center, vacancy, custom infotype to capture such items as CDL license requirements, old position number, shift premium etc. It is delta enabled, and data will be loaded daily.

3.3 Personnel Admin (PA)

InfoCube: Headcount and Personnel Actions 0PA_C01

This InfoCubes combines action data from IT0000 (actions) and IT0302 (supplementary actions) on daily basis with employee headcount numbers per month end. The cube includes key figures for headcount, number of actions by action type and action reason, and FTE counts. It includes employee attribute data with respect to diversity and organization data, i.e., personnel area and subarea, employee group and subgroup, org unit, job, position, pay scale and grade, employment status, age, gender,

nationality, length of service. There is no delta load option, but using filter options on the InfoPackage it is possible to load actions on daily basis and employee headcount data at end of month.

This InfoCube is the source for all action reports – hires, terminations, transfers etc, for headcount reporting, and for all analytics with respect to employee data. It is also used as a datasource for EEO InfoProvider.

Custom enhancement: For diversity reporting ethnicity and vet status will be added to the cube. In addition to report on hourly pay rate, it will be necessary to add a custom key figure that divides annual salary by hours worked from labor distribution (1018/0027).

InfoCube: EEO Data ZPA_C03

This custom InfoProvider contains data required for EEO compliance and all diversity reporting. Data is sourced from Headcount and Personnel Actions InfoCube, and from the master data tables for employee and position attributes. The InfoCube is delta load enabled, with data loaded daily for actions and at month end for employee headcount.

InfoCube: Headcount 0PAPA_C02

This InfoProvider reads data from 0Employee and 0Person and makes changes to these time dependent attributes available as headcount changes. It includes key figures for employee headcount changes, FTE headcount change and headcount change for Annual Salary.

DataStore: Actions DataStoreZPA_DS01

This custom DataStore is used to store IT0000(actions) and IT0302(supplementary actions) for actions reporting. Data passes from this DataStore to InfoCube 0PA_C01 (Headcount and Personnel Actions). This data store is used for multiple reasons, to provide delta functionality to Headcount and Personnel Actions InfoCube; to transform Headcount and Personnel Actions data before loading to the InfoCube; and to make Headcount and Personnel Action data available for InfoSet reporting.

Note: PA employee attribute/info type data cannot be readily combined in a MultiProvider because the data is primarily characteristic data which can only be joined with other characteristic data in an InfoSet. InfoSet's combine DataStore's and Master Data, but cannot include InfoCubes.

DataStore: Employee General Data ZPA_DS02

This custom DataStore will be used to load General employee infotype data for specific reporting requirements, i.e., company owned assets. It is delta enabled, and data will be loaded daily.

DataStore: Residence Status ZPA_DS03

This custom DataStore will be used to load employee infotype data 0048, 0094, 0556 for reporting on employee residence status and visa expiration dates. It is delta enabled, and data will be loaded daily.

DataStore: Qualifications and Education ZPA_DS04

This custom DataStore will be used to load employee infotype data 0022(qualifications) and 0024(education) for reporting on employee education and qualifications. It is delta enabled, and data will be loaded daily.

3.4 Time (PT)

InfoCube: Time and Labor 0PT_C01

This InfoCube contains time data differentiated by time types, stored on monthly basis in units of days and hours. It includes both planned times (T550A) and actual times from IT2001, 2002, 2010 and Cluster B2. This InfoCube will be used to report on absence and attendance, utilization, and overtime. The InfoCube is delta enabled, and data will be loaded daily.

InfoCube: Quota ZPT_C02 and DataStore ZPT_DS01

This custom DataStore and InfoCube will be used as source for reporting on quota data. They will includes employee data for org assignment, i.e., org unit, job, position, personnel area and sub area, employee group and subgroup, time status and quota type. Key figures include entitlement, taken, compensated, accrued and forfeited quota vales. Reports on leave liability and leave balances will be sourced from this InfoProvider, with drill thru capability from InfoCube to DataStore for lower level granularity. Both the InfoCube and DataStore are delta enabled, and data will be loaded daily.

InfoCube: FMLA ZPT_C03 and DataStore ZPT_DS02

This custom DataStore and InfoCube will be used as source for reporting on FMLA data. There will be drill thru capability from InfoCube to DataStore for lower level granularity. Both the InfoCube and DataStore are delta enabled, and data will be loaded daily.

Multi Provider: Time and OM Data ZPT_MC04

This custom multi provider will combine overtime data with vacancy data to satisfy report requirements on relationship between vacancies and overtime being worked at various organizational levels, i.e., org unit, job, position etc.

3.5 Payroll

InfoCube: Employee Specific Payroll Data 0PY_C02

This InfoCube stores cumulated payroll results data by employee by wage type amounts from ERP results table RT. Data is available on monthly basis and not pay period. Characteristics include employee, employee group and subgroup, personnel area and subarea, company code and cost center, wage type. Key figures are amount paid per wage type and units paid for i.e., hours.

All wage type reporting, deduction amounts, gross and net wage, garnishment, longevity payments, termination payment reporting would be sourced from this InfoProvider. The InfoCube is delta load enabled, and data will be loaded monthly.

To add pay period data would require significant modification, and if this is required we should address this with SAP who have developed this code as part of concurrent employment modifications to this InfoProvider. Added as Issue #350

Multi Provider: Time and Payroll Data 0PY_MC02

This MultiProvider combines data from Time and Labor InfoCube –PT_C01 --time types and hours, with Payroll Data InfoCube 0PY_C02 –wage types and payroll amounts. It is the source for reports on hours worked together with gross and net wage reporting at the employee level.

InfoCube: Posting Documents 0PY_PP2 and DataStore 0PY_PP_C2

This InfoCube provides data that is contained in posted or reversed posting documents. Posting documents are created when payroll results are posted to Finance. Posting documents do not contain any information on the personnel number level. Data is primarily sourced form Table PPDIT -Transfer to Accounting: Lines in HR IDOCs. This InfoProvider will be used for reporting of finance view of payroll data, and from this InfoProvider it will be possible to drill thru to Datastore Auditing Information and Payroll Data 0PY_PP_C1 to get detailed information behind the posting. No enhancements identified to date. This InfoCube and DataStore are delta enabled, and data will be loaded bi-weekly to reflect pay period.

DataStore: Auditing Information and Payroll Data 0PY_PP_C1

This DataStore contains the data that ERP stores in the posting index when payroll results are posted to Accounting (tables PPOIX and PPOPX). This data supplements the posting documents and provides auditing information. Thus it is possible to drilldown from the accounting posting to payroll data at the employee level by account assignment. This data is stored by payroll period. No enhancements identified to date. This DataStore is delta enabled, and data will be loaded bi-weekly to reflect pay period.

InfoCube: Auditing Information for Positions relevant to Cost Accounting 0PY_PPC01

This InfoProvider contains employee-specific details on posting data (auditing information), which are created by ERP when payroll results are posted. The data in this InfoCube originates from Data store object 0PY_PP_C1 (Auditing Information and Payroll Data). Data is restricted to postings that are relevant to cost accounting, which means postings to expense accounts with a CO account assignment. BI extraction uses characteristic 0PY_COINFO (Symbolic Account: CO/FM-relevant) to determine whether line items are relevant to cost accounting. This characteristic contains information on which account assignment types of ERP's symbolic accounts are flagged as relevant to cost accounting. In the standard system, they are the account assignment types for expense account postings (C, CN, and R). The calendar month, quarter, and year are derived from the end date of the payroll for-period. Posting data is supplemented with account assignment information on the cost center, order, and WBS element from ODS object 0PY_PP_C2 (*Posting Documents*). This InfoProvider will be used for payroll cost allocation reporting. This DataStore is delta enabled, data loaded bi weekly to reflect pay period.

3.6 Benefits (BN)

InfoCube: Benefits 0PABN_C01

The InfoProvider contains the employee master data and benefit plan data required for performing analyses of employee benefits within an organization. This data basis will be used to evaluate benefit plan participation and control benefit costs on a monthly basis. The data is sourced via function module and includes data from IT 0167 (Health Plans), 0168 (Insurance Plans), 0171 (General Benefits Info), 0377 (Misc. Plans). Key figures include employee pre and post tax deductions, employer contributions, costs and credits, imputed income, number of eligible employees and participating employees. Data is available at the employee level, by benefit area, plan, plan type, org structure elements, dependent coverage, and highly compensated employees. This InfoProvider will provide for reporting of plan participation, imputed income, enrollment data and plan cost analysis. No enhancements identified to date. This InfoCube is not delta enabled, but by using InfoPackage filters data can be loaded daily.

3.7 Cross Application Time Sheet -CATS

InfoCube: Time Sheet Data – Approved 0CATS_C01

This InfoProvider contains data that was entered using the Cross-Application Time Sheet (SAP CATS) and has been approved.

InfoCube: Time Sheet Data Released for Approval 0CATS_C02

The InfoCube contains time sheet data that has not yet been approved but that has already been released for approval.

Both CATS InfoProviders can be used to run reports on activities performed, such as the amount of time worked on particular projects. This data can then be analyzed according to various dimensions such as org structure assignment – i.e., personnel area, master cost center, employee group etc, Time type for Reporting, Receiver and sender account assignment, Task type, component, and level

MultiProvider: Time Sheet Data – 0CATS_MC01

This Multi provider combines data from the two CATS InfoCubes.

In BEACON reporting on time charges to cost objects will be sourced from this MultiProvider as will information with respect to late timesheet submission and/or approval. An enhancement will be required to make customer defined fields in ERP available within BI.

3.8 Finance

There are no transaction data requirements.

3.9 Master Data Enhancements

Employee. Add supervisor to employee attribute datasource, data sourced for HRP1001.

Position. Add budget data to position attribute datasource, data sourced from custom infotype 9018. In addition other custom infotype data, such as old position number may also be required.

Cost center. To support the interface between North Carolina Accounting System (NCAS) and ERP a custom mapping table between NCAS and ERP cost centers will be required in ERP. BI will create a custom extractor and add the NCAS cost center value to the 0CostCenter master data table as an additional attribute. In addition any InfoProvider where cost center is included the NCAS cost center will be added as a navigational attribute (to be removed at a later date when not needed). During realization the BI team will evaluate if a similar requirement for other components of the coding block exists.

Finance coding block. The finance team will maintain custom table in ERP to show text associated with sub strings of coding block. The BI team will create custom extractor to make this data available as master data in BI for reporting purposes.

4. BUSINESS INTELLIGENCE GLOSSARY

4.1 Attribute

InfoObjects that are logically assigned or subordinated to a characteristic and that cannot be selected in a query.

Example:

For a cost center, you could assign the attributes:

'Cost Center Manager' (characteristic as attribute)

Size of Cost Center in Square Meters' (key figure as attribute).

4.2 Business Content

BI Content is a pre-configured set of role and task-related information models that are based on consistent metadata in SAP Business Intelligence. BI Content provides selected roles within a company with the information they need to carry out their tasks.

This information model includes integral roles, workbooks, queries, InfoSources, InfoCubes, DataStore objects, key figures, characteristics, update rules, and extractors for SAP applications

4.3 Business Explorer (BW-BEX)

SAP NetWeaver BI suite that provides flexible reporting and analysis tools for strategic analysis and to support the decision-making process in companies.

4.4 Business Intelligence (SAP)

Business Intelligence includes all informational, technical instruments for analyzing all knowledge available in a company. Access, analysis and provision of business data for users in the company.

4.5 Calculated Key Figure

A value that is determined using calculation rules or formulas within a report. Calculated key figures are not stored in database tables

4.6 Characteristic

Type of InfoObject. An evaluation group such as company code, product, customer group, fiscal year, period, or region.

Characteristics provide classification possibilities for the dataset. An InfoCube generally contains only a partial quantity of the characteristic values from the master data table at a time. The master data includes the permitted values for a characteristic, also called characteristic values. Characteristic values are discrete names.

The characteristic "Region" has the following specifications, for example:

- North
- Central
- South

4.7 Dimension

A grouping of those evaluation groups (characteristics) that belong together under a common super ordinate term.

With the definition of an InfoCube, characteristics are grouped together into dimensions in order to store them in a star schema table (dimension table).

4.8 Drill down (BI)

To navigate into more detail in a query result by expanding a dimension into values for each of its members, adding these values to additional rows in the result.

You can also drill across, where values for the selected dimension are added to additional columns. This is also commonly referred to as drilling down.

4.9 Extractor

Program used to fill the extraction structure of a DataSource with data from datasets in the SAP source system.

4.10 Fact Table

Table in the center of an InfoCube star schema.

The data part contains all key figures of the InfoCube and the key is formed by links to the entries of the dimensions of the InfoCube.

4.11 Hierarchy

The organization of the characteristic values of a characteristic into a tree structure.

Example: A hierarchy for cost centers that are combined in cost center groups.

In reporting, hierarchies for characteristics can be set in the following ways:

- As presentation hierarchies for a characteristic, if it is to be displayed as a hierarchy
- As a way of selecting particular characteristic values if a characteristic is to be restricted to a hierarchy or a hierarchy node

Hierarchies can be loaded into the BI system or created in the BI system for hierarchy basic characteristics. They can be used across different InfoProviders.

4.12 InfoArea

Element for grouping meta-objects in the BI system.

Each InfoProvider is assigned to an InfoArea. The resulting hierarchy is displayed in the Data Warehousing Workbench.

In addition to their properties as an InfoProviders, InfoObjects can also be assigned to different InfoAreas.

4.13 InfoCatalog

This is a tree-like structure in the Administrator Workbench that displays Business Information Warehouse workbooks. The various InfoCatalog trees contain:

- Workbooks that SAP delivers
- Workbooks that can be used in an enterprise
- Workbooks that are used by certain user groups
- Workbooks that an individual user is allowed to use
- Workbooks (favorites) that a user has put together

The structure of the sub trees can be freely defined by the administrator.

A user accesses his or her InfoCatalog workbooks using the Business Explorer Browser.

4.14 InfoCube

Type of InfoProvider.

An InfoCube describes a self-contained dataset (from the reporting view), for example, for a business-oriented area. This dataset can be evaluated with the BEx query.

An InfoCube is a set of relational tables that are created in accordance with the star schema: a large fact table in the center, with several dimension tables surrounding it.

4.15 InfoObject

Business evaluation objects (for example, customers or sales) are called InfoObjects in BI.

InfoObjects are subdivided into characteristics, key figures, units, time characteristics, and technical characteristics (such as request numbers).

4.16 InfoPackage

This describes which data in a DataSource should be requested from a source system. The data can be precisely selected using selection parameters (for example, only controlling area 001 in period 10.1997).

An InfoPackage can request the following types of data:

- Transaction data
- Attributes for master data
- Hierarchies for master data

Master data texts

4.17 InfoProvider

Super ordinate term for BI objects into which data can be loaded or which represent a view of the data. As a rule, you can report on this data using BEx queries.

There are two types of InfoProviders. One type includes objects that contain physical data such as InfoCubes, DataStore objects and InfoObjects (characteristics with attributes or texts). The other type includes objects that are not physical data stores, such as InfoSets, VirtualProviders and MultiProviders.

4.18 InfoSet

InfoProvider: A semantic view of DataStore objects, InfoObjects (characteristics with master data) and InfoCubes that allows you to create reports on these objects, particularly on the joins between these objects.

Unlike the classic InfoSet, this view of data is BI-specific. In the InfoSet builder, InfoSets are created and changed. InfoSets allow you to use the query designer to define reports.

4.19 InfoSource

Structure that consists of InfoObjects and is used as a non-persistent store to connect two transformations.

4.20 iView

Program that retrieves data from content various State of NC sources and Internet sources and displays it in the Enterprise Portal content area.

4.21 Key figure

Values or quantities.

In addition to the key figures saved on the database, you have the option of defining derived (calculated) key figures in the query definition in the Business Explorer. Such key figures are calculated using a formula from the key figures of the InfoCube.

Examples of key figures include the following:

Sales revenue, fixed costs, sales quantity, or number of employees.

Examples of derived key figures include the following:

Sales revenue per employee, variance as a percentage, or contribution margin.

4.22 Metadata

Data about data. Metadata describes the origin, history, and other aspects of data

4.23 Metadata Repository

Provides central access to information about metadata objects in the BI system:

- Active objects in the system (activated objects)
- SAP delivery objects in the system (Business Content)

The metadata repository provides the following functions:

- Metadata search
- HTML page exports
- Graphical object display

Further functions for metadata:

- Exchange metadata between different systems (transport connection)

- Create documents for metadata objects and select them to be displayed as on-line documentation (document management)

4.24 MultiProvider

Type of InfoProvider that combines data from several InfoProviders and makes it available for reporting.

The MultiProvider itself contains no data; its data comes exclusively from the InfoProviders on which it is based (collated using a union operation). You can assemble a MultiProvider from different combinations of InfoProviders.

MultiProviders, like InfoProviders, are objects or views that are relevant for reporting.

4.25 Navigation (BI)

Analysis of the InfoProvider data by displaying different views on the data of a query or a Web application.

With the aid of the various navigational functions, such as:

- 'Fix as Filter Value'
- 'Insert Drilldown According to'

Different views of the data (query views) can be generated that are presented in the results area of the query or Web application. Changing views is considered to be navigation

4.26 Navigation attribute

Attributes that you can add to InfoCube to make it available for selection in the query

4.27 OLAP

OLAP systems organize data in a multidimensional model that is suitable for decision support. OLAP is the analytical counterpart of OLTP, or Online Transactional Processing. SAP NetWeaver BI is an OLAP system.

4.28 Query (BI)

Combination of characteristics and key figures (InfoObjects) that allow you to analyze the data in an InfoProvider. A query corresponds to one InfoProvider, although you can define any number of queries for each InfoProvider.

A query in the BEx Query Designer can be defined by selecting InfoObjects or reusable query elements (structures, for example) for an InfoProvider. You can model the view of the InfoProvider data by allocating filters, rows, columns, and free characteristics.

You can use queries as the basis for generating data providers in BI applications, or open them and execute them for analysis purposes in a standard view in the BEx Web Analyzer or BEx Analyzer.

4.29 Report (BI)

- Web item that enables the display of formatted reports (Reports).
- Type of BI application

4.30 Source System

System that is available to BI for data extraction and transfer purposes

4.31 Variable

Parameters of a query that are created in the BEx Query Designer and are not actually filled with values (processed) until the query is inserted into a workbook.

They function as a place holder for characteristic values, hierarchies, hierarchy nodes, texts, and formula elements. They can be processed in different ways.

Variables in SAP NetWeaver BI are global variables, meaning that they are uniquely defined and are available for the definition of all queries.